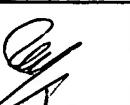
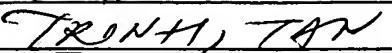
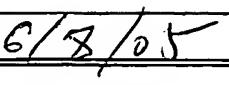


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Date Submitted to PTO: December 16, 2003			APPLICANT Mitsuaki OSHIMA				
			FILING DATE December 16, 2003		GROUP		
U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	5,311,550 ✓	5-10-94	Fouche et al.	—	—	
	AB	4,630,287 ✓	12-16-86	Armstrong	—	—	
	AC	4,271,527 ✓	6-2-81	Armstrong	—	—	
	AD	5,050,188 ✓	9-17-91	Dirr	—	—	
	AE	5,398,073 ✓	3-14-95	Wei	—	—	
	AF	5,452,015 ✓	9-19-95	Hulyalkar	—	—	
	AG	5,565,932	10-15-96	Citta et al.	—	—	
	AH	5,481,412	1-2-96	Bannai et al.	—	—	
	AI	3,909,721	9-30-75	Bussgang et al.	—	—	
FOREIGN PATENT DOCUMENTS							
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	AJ	0365431	4-25-90	EP	—	—	X
	AK	0485105	5-13-92	EP	—	—	X
	AL	92/14343	8-20-92	WO	—	—	X
	AM	89/08366	9-8-89	WO	—	—	X
	AN	0031193	7-1-81	EP	—	—	X
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)							
	AO	Shinji Matsumoto et al., "200 Mb/s 16 QAM Digital Radio-Relay System Operating in 4 and 5 GHz Bands", Japan Telecommunications Review, January 1982, vol. 24, no. 1, pages 65-73.					
	AP	M. Pecot et al., "Compatible Coding of Television Images, Part 2. Compatible System", Signal Processing Image Communication, October 2, 1990, no. 3, pages 259-268.					
	AQ	Mitsuaki Oshima, "Constellation-Code Division Multiplex for Digital HDTV", IEEE, 1992, pages 1086-1092.					
EXAMINER 			DATE CONSIDERED 				

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12/15/23

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*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<i>Jay</i>	AA	4,227,152	10-7-80	Godard et al.	—	—	
	AB	4,525,846	6-25-85	Bremer et al.	—	—	
	AC	4,751,478	6-14-88	Yoshida	—	—	
	AD	4,891,806	1-2-90	Farias et al.	—	—	
	AE	4,903,125	2-20-90	Parker	—	—	
	AF	4,937,844	6-26-90	Kao	—	—	
	AG	5,164,963	11-17-92	Lawrence et al.	—	—	
	AH	5,555,275	9-1996	Oshima	—	—	
<i>Jay</i>	AI	5,565,926	10-15-96	Bryan et al.	—	—	
FOREIGN PATENT DOCUMENTS							
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	AJ	0311188	4-12-89	EP	—	—	X
	AK	0329158	8-23-89	EP	—	—	X
	AL	64-5135	1-10-89	JP	—	—	X
	AM	63-28145	2-5-88	JP	—	—	X
	AN	62-133842	6-17-87	JP	—	—	X
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)							
<i>Jay</i>	AO	Tricia Hill et al., "A Performance Study of NLA 64-State QAM", IEEE Transactions on Communications, vol. COM-31, June 1983, no. 6, pages 821-826.					
<i>Jay</i>	AP	Hideki Ishio et al., "A Proposal of a Carrier Digital Transmission System Using Multi-Level APSK", pages 1-20.					
<i>Jay</i>	AQ	Shanmugam, "Digital and Analog Communication Systems" 1979, p. 272.					
EXAMINER <i>TRINH, TAN</i>				DATE CONSIDERED <i>6/8/05</i>			

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<i>Jay</i>	AA	5,105,442	4-14-92	Wei			
	AB	4,048,572	9-13-77	Dogliotti et al.			
	AC	5,282,019	1-25-94	Basile et al.			
	AD	5,311,547	5-10-94	Wei			
	AE	5,267,021	11-30-93	Ramchandran et al.			
	AF	5,038,219	8-6-91	Yamashita et al.			
	AG	5,087,975	2-11-92	Citta et al.			
<i>Jay</i>	AH	5,086,340	2-4-92	Citta et al.			
<i>Jay</i>	AI	5,243,629	9-7-93	Wei			
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<i>Jay</i>	AJ	53-137657	12-1-78	JP			X
	AK	0282298	9-14-88	Europe			X
	AL	0392538	10-17-90	Europe			X
<i>Jay</i>	AM	0490552	6-17-92	Europe			X
<i>Jay</i>	AN	0506400	9-30-92	Europe			X
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)							
<i>Jay</i>	AO	Khaled Fazel et al., Combined multilevel coding and multiresolution modulation, February 8, 1993, Pages 1081-1085					
<i>Jay</i>	AP	P. Hoehler et al., Performance of an RCPC-Coded OFDM-based Digital Audio Broadcasting (DAB) System, IEEE Global Telecommunications Conference "Globecom '91", December 2-5, 1991, Vol. 1 of 3, Pages 2.1.1 - 2.1.7					
<i>Jay</i>	AQ	K. M. Uz et al., Combined multiresolution source coding and modulation for digital broadcast of HDTV*, 1992, Pages 283-292					
EXAMINER	<i>JAY J. TAN</i>			DATE CONSIDERED	<i>6/8/05</i>		

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<i>SG</i>	AA	5,142,353	8-25-92	Kageyama et al.	<hr/>	<hr/>	
	AB	5,197,061	3-23-93	Halbert-Lassalle et al.	<hr/>	<hr/>	
	AC	5,291,289	3-1-94	Hulyalkar et al.	<hr/>	<hr/>	
	AD	5,166,924	11-24-92	Moose	<hr/>	<hr/>	
	AE	4,940,954	7-10-90	Aubert et al.	<hr/>	<hr/>	
	AF	5,128,758	7-7-92	Azadegan et al.	<hr/>	<hr/>	
<i>SG</i>	AG	5,038,402	8-6-91	Robbins	<hr/>	<hr/>	
<i>SG</i>	AH	5,638,112	6-10-97	Bestler et al.	<hr/>	<hr/>	
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<i>SG</i>	AI	0448492A1	9-25-91	Europe	<hr/>	<hr/>	X
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<i>SG</i>	AM	0531046A2	3-10-93	Europe	<hr/>	<hr/>	X
OTHER DOCUMENT(S) ( <i>Including Author, Title, Date, Pertinent Pages, Etc.</i> )							
<i>SG</i>	AN	K. M. Uz et al., Multiresolution Source and Channel Coding for Digital Broadcast of HDTV, 1992, Pages 61-69.					
	AO	Nambi Seshadri et al., Multi-Level Block Coded Modulations with Unequal Error Protection for the Rayleigh Fading Channel, Vol. 4, No. 3, May-June 1993, Pages 325-334.					
<i>SG</i>	AP	William F. Schreiber, Spread-Spectrum Television Broadcasting, SMPTE Journal, August 1992, Pages 538-549.					
EXAMINER	<i>Trinh T. Tran</i>			DATE CONSIDERED	<i>6/8/05</i>		

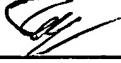
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<i>Trinh</i>	AA	5,063,445	11-5-91	Nishizawa et al.			
<i>Trinh</i>	AB	5,819,000	10-6-98	Oshima			
<i>Trinh</i>	AC	5,999,569	12-7-99	Oshima			
<i>Trinh</i>	AD	5,892,879	4-6-99	Oshima			
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<i>Trinh</i>	AE	7-99522	4-11-95	Japan			abstract
	AF	7-79415	3-20-95	Japan			abstract
	AG	5-75568	3-26-93	Japan			abstract
	AH	86-07223	12-4-86	WO			X
	AI	2 187 611	9-9-87	Great Britain			X
	AJ	85/04541	10-10-85	WO			X
	AK	04-196822	7-16-92	Japan			abstract
	AL	2-166979	6-27-90	Japan			abstract
	AM	64-74836	3-20-89	Japan			abstract
<i>Trinh</i>	AN	53-108215	9-20-78	Japan			abstract
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<i>Trinh</i>	AO	Martin Vetterli et al., Multiresolution Coding Techniques for Digital Television: A Review, Multidimensional Systems and Signal Processing, Volume 3, May 1992, Pages 161-187.					
<i>Trinh</i>	AP	Ezio Biglieri et al., Introduction to Trellis-Coded Modulation with Applications, April 6, 1992, Pages 173-207.					
<i>Trinh</i>	AQ	English Language Abstract of European Patent No. 93 30 7575					
EXAMINER	<i>Trinh, T. Trinh</i>			DATE CONSIDERED		<i>1/8/05</i>	

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<i>ST</i>	AA	4,636,876	1-13-87	Schwartz	—	—	
<i>ST</i>	AB	4,855,692	8-8-89	Kennard et al.	—	—	
	AC	4,873,701	10-10-89	Tretter	—	—	
	AD	4,958,360	9-18-90	Sari	—	—	
	AE	5,115,453	5-19-92	Calderbank et al.	—	—	
	AF	5,168,509	12-1-92	Nakamura et al.	—	—	
	AG	5,600,672	2-4-97	Oshima et al.	—	—	
<i>ST</i>	AH	6,049,651	4-11-00	Oshima	—	—	
<i>ST</i>	AI	6,256,357	7-3-01	Oshima	—	—	
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<i>ST</i>	AJ	0122805	10-24-84	EP	—	—	X
	AK	63-180280	7-25-88	JP	—	—	abstract
	AL	64-68144	3-14-89	Japan	—	—	abstract
<i>ST</i>	AM	5-218978	8-27-93	Japan	—	—	X
<i>ST</i>	AN	3-69295	3-25-91	Japan	—	—	X
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)							
<i>ST</i>	AO	Kazuhiko Nitadori, Synthesis of Multichannel Orthogonal VSB Signals by Quadrature Method, 1976 International Conference on Communications, June 14-16, 1976, Volume 1, Pages 3-25 - 3-29.					
	AP	Thomas M. Cover, Broadcast Channels, IEEE Transactions on Information Theory, January 1972, Pages 2-14					
<i>ST</i>	AQ	"Optimum Weighted PCM for Speech Signals", Sundberg, IEEE Transactions on Communications, Volume COM-26, No. 6, June 1978, Pages 872-881.					
EXAMINER	<i>TRINH, STAN</i>			DATE CONSIDERED	<i>12/8/05</i>		

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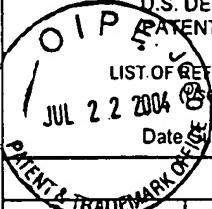
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EXAMINER	TANAHARA, TAN		DATE CONSIDERED		6/8/05		

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U.S. DEPARTMENT OF COMMERCE

PATENT AND TRADEMARK OFFICE

LIST OF REFERENCES CITED BY APPLICANT(S)  
(use several sheets if necessary)JUL 22 2004  
Date Submitted to PTO: July 22, 2004APPLICANT  
Mitsuaki OSHIMAFILING DATE  
December 16, 2003GROUP  
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EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
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AJ	2-154583	6-13-90	Japan		abstract	
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	AO	Shigeki MORIYAMA et al., "Delay Propagation Characteristics at VHF and UHF bands in Urban Area", 1991 Spring National Convention Record, The Institute of Electronics, Information and Communication Engineers, Part 2, p. 406, March 15, 1991
	AP	Yasuhiro ITO et al., "Adaptive Weighted Code Division Multiplexing (AW-CDM) Transmission System for Terrestrial Digital Television Broadcasting", ITE Technical Report Vol. 17, No. 13, pp 27-32, February 25, 1993
	AQ	

EXAMINER TRINH, TAN

DATE CONSIDERED

6/8/05